**PALCO INSULATION WOOL**®

# THE ALL-PURPOSE INSULATION

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**A Redwood Bark Product of**
**THE PACIFIC LUMBER COMPANY**

# EQUALLY EFFICIENT FOR HOMES AND LOW TEMPERATURE REFRIGERATION

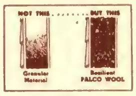
Unlike other insulating materials, PALCO WOOL Insulation, derived from the thick fibrous bark of the giant Redwoods is equally suitable for homes, commercial buildings and refrigerated plants. Its many points of superiority and efficiency make it the ideal all-purpose insulation for maintaining uniform temperatures under all types of climatic conditions, ranging from extreme heat to severe cold.

As one of the most widely used and accepted insulating materials, PALCO WOOL Insulation adequately measures up to existing requirements and the rigid standards imposed by architects, engineers and builders. Its high insulating factor and low conductivity are attributed to the close-knit cellular structure of its resilient fibres, in which millions of tiny air cells are trapped. When installed in walls or ceiling areas, displaced air spaces are subdivided into minute dead-air pockets which further add to PALCO WOOL'S insulating efficiency.

## *Major Points of Superiority*

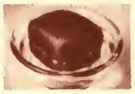
**.255**
**B. T. U.**

**High Thermal Efficiency**—Because of its extremely low conductivity of .255 B.T.U. PALCO WOOL is considered one of the most highly efficient of accepted types of insulation. Installed in loose fill form, it breaks up existing air spaces, thereby reducing the transmission of heat to a minimum.



**Non-Settling—Non-Compacting.** Under continuously severe vibration tests, conducted by a leading independent testing laboratory over a period of 42 consecutive days, a 10-foot wall section of PALCO WOOL showed no settlement whatsoever.

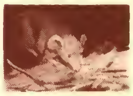
**Flame-Proof—Fire-Resistant**—Inherently fire-resistant in itself PALCO WOOL fibre is thoroughly treated under the special Saferized process to make it fully flame-proof. By displacing air spaces and eliminating circulating drafts and convection currents, it greatly reduces fire hazards.



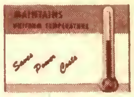
**Moisture-Resistant**—Due to their non-hygroscopic characteristics, PALCO WOOL fibres will not absorb any perceptible amount of condensate or moisture from the air. Even when partially submerged, PALCO WOOL shows no tendency toward capillary action.

**Odorless and Odor-Proof**—Odorless in itself, PALCO WOOL contains no micro-organisms nor volatiles, and will therefore not support fermentation or putrefaction. Moreover, as it does not take on odors—it will not give off any odor.

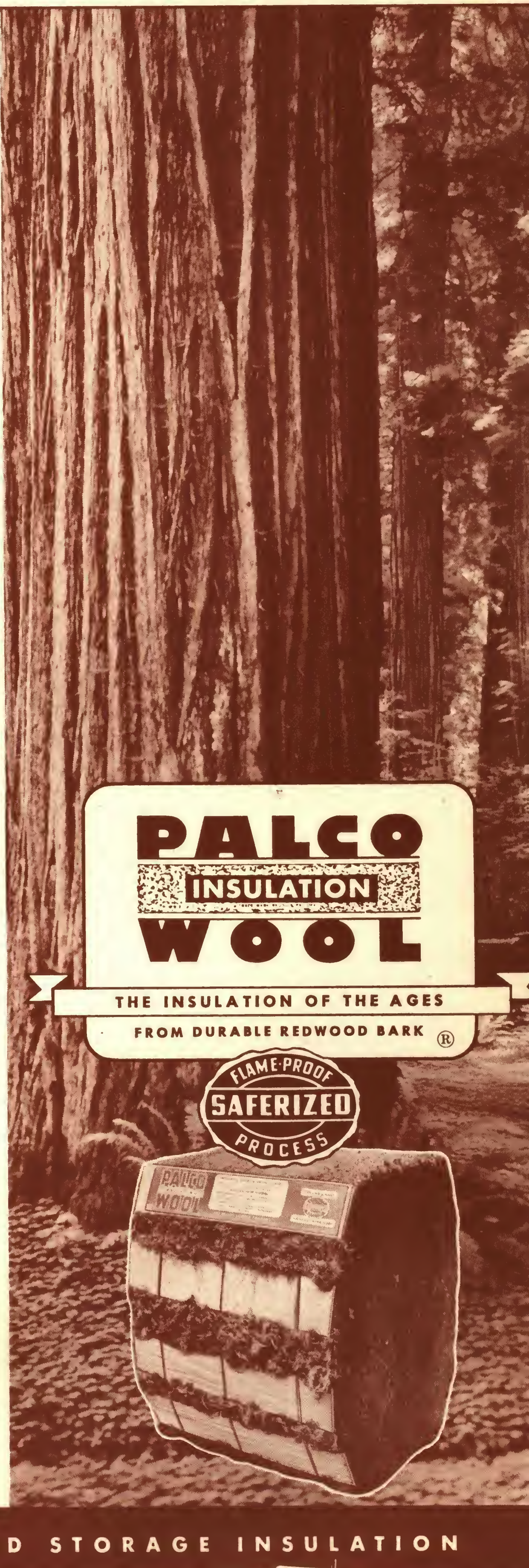
**Permanent**—Tested and proven by the centuries in protecting the giant redwoods from the ravages of time, weather, fire and insects, PALCO WOOL insulation will last as long as the structure stands. Once installed, it requires no further thought or attention.



**Non-Attractive to Vermin or Insects**—As it is acridly distasteful to rodents and insects alike, it offers no attraction or inducement to them. Other organisms, likewise, cannot exist or thrive on it, as it contains no nutriment.



**Economical**—The low-cost economy of installation, high insulating efficiency and lasting permanence make PALCO WOOL extremely economical. By reducing heat losses it reduces fuel waste, thereby effecting real savings, year after year.



**FOR HOUSE INSULATION...FOR COLD STORAGE INSULATION**

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# **FOR** *House Insulation*

## REPAYS ITS COST IN SAVINGS AND INCREASED VALUES . . .

The true value of every house is measured, not by the initial cost, but in terms of comfort, convenience and continuing economy. Houses that absorb too much heat in summer, that are costly and hard to heat in winter, are neither comfortable nor economical, even though they may be conveniently planned, beautifully designed and well constructed. To permanently remedy this condition, regardless of when a house was designed or built, specify PALCO WOOL Insulation.

## ELIMINATES FLOOR DRAFTS

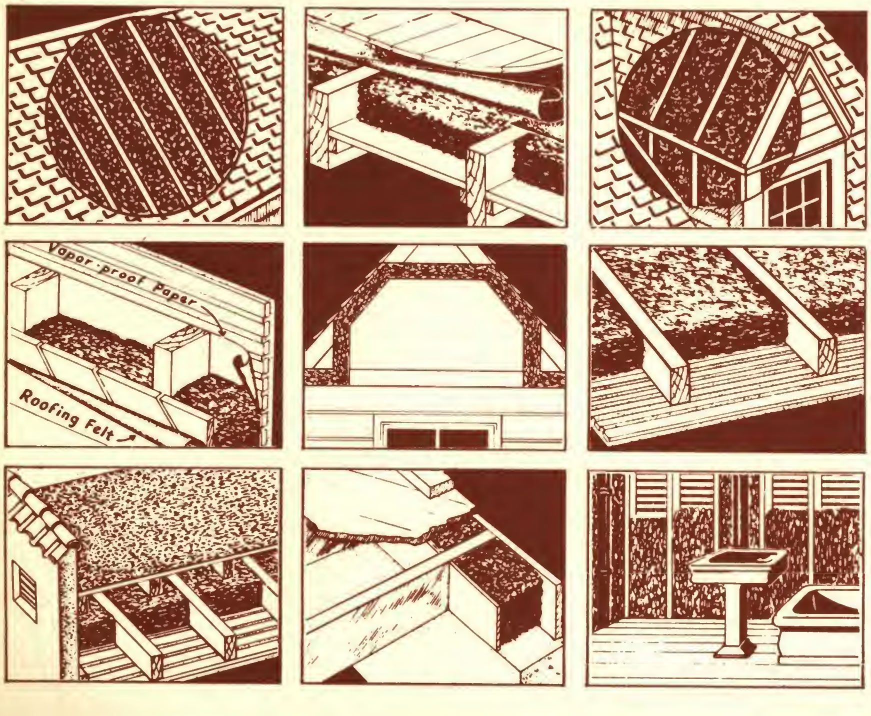
PALCO WOOL Insulation helps to produce even temperatures throughout the house, preventing the floor drafts caused by the movements of unevenly heated air masses.

## REDUCES HEAT LOSSES

The amount of fuel required to maintain room temperatures throughout the winter is minimized, and effective protection is provided against the penetration of heat in the summer.

## EFFECTIVE SOUND DEADENING MATERIAL

Installed in walls between adjoining apartments, rooms, bathrooms and kitchens, PALCO WOOL provides an effective sound deadening medium.



## REDUCES FIRE HAZARDS

Installed in outer walls and upper ceilings, Saferized PALCO WOOL forms a permanent non-settling non-compacting fire-stop by displacing air spaces and eliminating circulating drafts. PALCO WOOL does not become brittle nor disintegrate when sprayed with water after being subjected to intense heat in burning structures. Because of its springy resilience, it maintains its original volume, thereby further retarding the spread of fire. Through its extremely high insulating value against heat and cold, PALCO WOOL eliminates the hazard of over-taxing heating plants during cold spells.

## ESTIMATING QUANTITIES REQUIRED

1. **Specify a 4-inch thickness of Saferized PALCO WOOL Insulation.**
2. **The requirement for blown flat areas is .6 lbs. per square foot.**
3. **For hand packed side-walls .8 lbs. per square foot is recommended.**

## VAPOR-PROOFING BARRIER

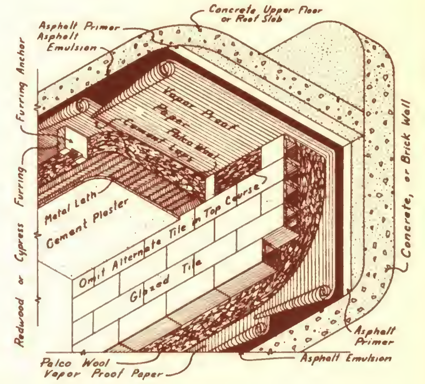
In locations where sub-freezing temperatures are encountered for several months at a time, provision should be made to prevent moisture-laden air or vapor from entering and condensing in the outer walls or upper ceilings. A suitable vapor barrier should be employed on the inside studs of a wall or under the ceiling joists prior to plastering and insulating, no matter what type of insulating material is used. Various vapor barriers which have proved satisfactory are: asphalt-impregnated, glossy, surface-coated sheathing paper; and duplex Kraft paper cemented with asphalt.

**KEEPS HOMES IN THE COMFORT ZONE...WARM IN WINTER, COOL IN SUMMER**

# FOR *Cold Storage Insulation*

## CONSTANT LOW-TEMPERATURE CONTROL

Dependable cold storage demands constant low temperatures, uniformly maintained within close ranges. To achieve this, an insulation possessing extremely high thermal efficiency and low conductivity is needed. PALCO WOOL, with a thermal conductivity of .255 B.T.U. has proved to be one of the most efficient insulations in use today. It is entirely self-supporting, and will not settle or compact. It withstands moisture, resists decay and deterioration, is odor-proof and vermin-repellent.



## COLD STORAGE SPECIFICATION DETAILS

**1.** Applied density of Palco Wool Insulation to be four and one-half pounds per cubic foot. Correct density to be achieved by firm hand pack method.

**2.** Palco Wool Insulation to be flame-proof under manufacturers special SAFERIZED process.

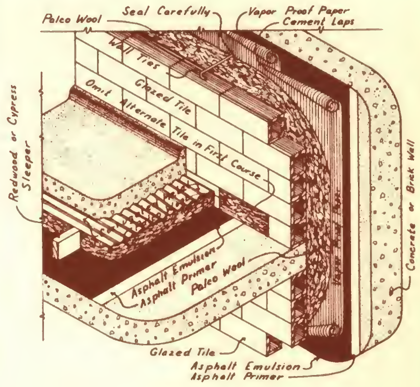
**3.** An effective vapor barrier to be installed on warm side of insulation to maintain ideal condition of dryness, and to insure maximum insulating efficiency (Vapor barriers are fully described in detail in Palco Wool Cold Storage Manual).

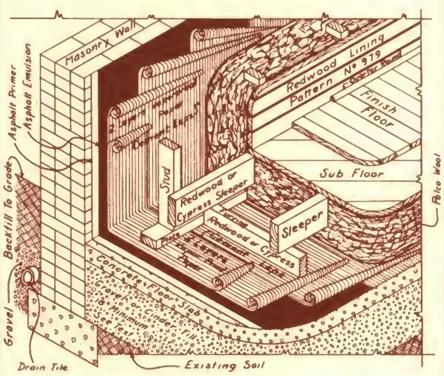
**4.** An extra layer of paper in addition to that shown in accompanying detail drawings to be applied at corners and angles.

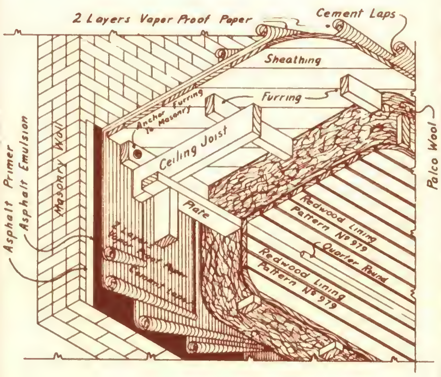
**5.** Masonry surfaces on warm side of the insulation to be thoroughly sealed with one thin prime coat, and one heavy finish coat of asphalt emulsion. A layer of vapor-proof paper then to be applied, lapping all joints 4 inches, and cementing the laps with asphalt emulsion.

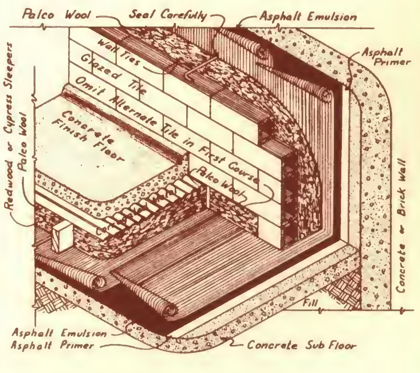
**6.** Where concrete finish floors are positioned over insulation, one layer of light roofing felt to be used over wood sub-floor to afford temporary protection while pouring concrete.

**7.** Wood used for interior finish should be dry and free from loose knots and other defects. It should be all heartwood of a durable species. It should have low shrinkage factor and be able to hold paint when subjected to moisture. It should not absorb or give off odors. (California Redwood is recommended for lining wherever available.)









**LOW TEMPERATURE CONTROL WITHIN EXTREMELY CLOSE RANGE**

**PALCO**
**INSULATION**
**WOOL** ®

# —EASY TO APPLY

## INSTALLED BY HAND OR BLOWER

PALCO WOOL Insulation is supplied in machine compressed bales measuring 24″ x 24″ x 26″ and weighing approximately 100 lbs. each. Before application, PALCO WOOL should be fluffed to insure uniform density, by means of a rake, fork or fluffing machine. It is easily installed by Hand-Packing or by Pneumatic Blowing Machine.

## FURTHER DETAILS AND SAMPLES AVAILABLE

Architects and engineers may obtain additional information or specifications to meet unusual conditions requiring special treatment by writing to the Engineering Department of The Pacific Lumber Company. Complete details in convenient manuals are available on the following subjects:

- **House Insulation**
- **Cold Storage Insulation**
- **How to Build a Frozen Food Locker Plant**
- **Refrigerated Apple Storage Plans**
- **PALCO WOOL Blowing Machine**
- **PALCO WOOL Fluffing Machine**

*A free sample of Saferized PALCO WOOL Insulation will be furnished on request.*

## RECOMMENDED THICKNESS FOR VARIOUS TEMPERATURES

The amount of insulation to be applied in order to maintain certain degrees of temperature can be theoretically determined by considering the refrigerating cost as compared to the cost of the insulation. In general, lower temperatures require greater thickness of any insulating material. Because of the low cost of PALCO WOOL it has proved economical to use a thickness greater than minimum requirements as indicated by the chart at right. This insures continued savings in operating costs.

| For Temperature of: | Recommended Thickness of PALCO WOOL | Required Minimum Thickness of PALCO WOOL |
|---|---|---|
| 34° F. | 4 in. | 3 in. |
| 25° F. | 6 in. | 4 in. |
| 10° F. | 8 in. | 6 in. |
| 0° F. | 10 in. | 8 in. |
| —10° F. | 12 in. | 9 in. |
| —20° F. | 14 in. | 10 in. |
| —30° F. | 16 in. | 12 in. |

## AMONG THOSE USING PALCO WOOL

Hunt Foods, Inc.
The Union Ice Company
California Walnut Growers Association
Placerville Fruit Growers Association
United States Army
United States Navy
Wesix Electric Heater Co.
Baker Ice Machine Company
H. P. Henschein, Engineer, Chicago
American President Lines, Ltd.
Southern Pacific Co.
Kraft-Phenix Cheese Corp.
Coca Cola Company of Canada, Ltd.,
Montreal, Quebec
Ralston Purina Company, Inc.
and
*Thousands of Low Temperature installations including more than 2,600 Locker Plants.*

**Also Sold Nationally Through Dealers and Applicators**

## THE PACIFIC LUMBER COMPANY

San Francisco 4: 100 Bush Street
Chicago 1: 35 East Wacker Drive
Los Angeles 36: 5225 Wilshire Boulevard

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